Status Update on the Regulatory Revisions to Appendix W: Roadmap of the Day

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May 20, 2014

Regional, State, Local Modelers Workshop

Outline

- Schedule
- Content summary
- Process

Schedule

- Proposed Rulemaking, “Revision to the Guideline on Air Quality Models”, Spring 2015
- 11th Conference on Air Quality Modeling
  - Serves as public hearing for NPRM
  - 2 to 3-day conference in RTP, North Carolina
- Final Rulemaking, “Revision to the Guideline on Air Quality Models”, Spring 2016

Appendix W Outline: Section 1-3

- **1.0 Introduction (same as original)**

- **2.0 Overview of Model Use (same as original)**
  - 2.1 Suitability of Models
  - 2.2 Levels of Sophistication of Models
  - 2.3 Availability of Models

- **3.0 Recommended Air Quality Models (same as original)**
  - 3.1 Preferred Modeling Techniques
  - 3.2 Use of Alternative Models
  - 3.3 Availability of Supplementary Modeling Guidance

Appendix W Outline: Section 4

- **4.0 Models for Particulate Matter, Carbon Monoxide, Sulfur Dioxide , Nitrogen Dioxide, and Lead**
  - 4.1 Discussion
  - 4.2 Recommendations
    - 4.2.1 Models for Particulate Matter
      - 4.2.1.1 PM–2.5
      - 4.2.1.2 PM–10
    - 4.2.2 Models for Sulfur Dioxide
    - 4.2.3 Models for Carbon Monoxide
    - 4.2.4 Models for Nitrogen Dioxide
    - 4.2.5 Models for Lead

Appendix W Outline: Section 5

- **5.0 Models for Ozone and Particulate Matter (Secondary)**
  - 5.1 Discussion
  - 5.2 Recommendations
    - 5.2.1 Models for Ozone
    - 5.2.2 Models for Particulate Matter
      - 5.2.2.1 PM–2.5
      - 5.2.2.2 PM–10

Appendix W Outline: Section 6

- **6.0 Models for Visibility and Air Quality Related Values**
  - 6.1 Discussion
  - 6.2 Recommendations
    - 6.2.1 Visibility
    - 6.2.2 Long Range Transport (LRT) (i.e., beyond 50 km)
    - 6.2.3 Modeling Guidance for Other Governmental Programs

Appendix W Outline: Section 7-8

- **7.0 Stationary Source Models**
  - 7.1 Discussion
  - 7.2 Recommendations
    - 7.2.1 Screening Techniques
    - 7.2.2 Refined Analytical Techniques
  - 7.3 General Modeling Considerations
    - 7.3.1 Design Concentrations
    - 7.3.2 Critical Receptor Sites
    - 7.3.3 Dispersion Coefficients
    - 7.3.4 Stability Categories
    - 7.3.5 Good Engineering Practice Stack Height
    - 7.3.6 Plume Rise
    - 7.3.7 Chemical Transformation
    - 7.3.8 Gravitational Settling and Deposition
    - 7.3.9 Complex Winds

- **8.0 Mobile Source models**

Appendix W Outline: Section 9

- **9.0 Model Input Data**
  - 9.1 Source Data
    - 9.1.1 Discussion
    - 9.1.2 Recommendations
  - 9.2 Background Concentrations
    - 9.2.1 Discussion
    - 9.2.2 Recommendations (Isolated Single Source)
    - 9.2.3 Recommendations (Multi-Source Areas)
  - 9.3 Meteorological Input Data
    - 9.3.1 Site Specific Data
    - 9.3.2 National Weather Service Data
    - 9.3.3 Prognostic Data

Appendix W Outline: Section 10

- **10.0 Regulatory Application of Models**
  - 10.1 Discussion
  - 10.2 Recommendations
    - 10.2.1 Analysis Requirements
    - 10.2.2 Use of Measured Data in Lieu of Modeling
    - 10.2.3 Emission Limits

Working Groups

- **Established formal working groups of OAQPS and Regional Office Modelers**
  - AERMOD Development & Evaluation (Roger Brode)
  - Screening Techniques (James Thurman)
  - NO2 Modeling (Chris Owen)
  - Meteorological Inputs (James Thurman)
  - IWAQM Phase 3: Near field impacts & Long-range transport (EPA and FLMs)